

37. (Amended) The method of claim 36 further including cross-indexing said relative abundance and stoichiometry of said complexes to the structures of said member compounds.

REMARKS

Claims 1-120 are pending in the present application. Claims 1-29 and 47-120 have been cancelled without prejudice to their presentation in another application as being drawn to non-elected inventions. Claim 37 has been amended to correct a typographical error. No new matter has been added. Because the amendment to Claim 37 advances the application towards allowance or remove an issue for appeal (*i.e.*, corrected a typographical error), Applicants respectfully request that it be entered into the record. See, M.P.E.P. § 714.12.

I. The Claims Are Clear And Definite

Claims 33 and 35 stand rejected under 35 U.S.C. § 112, second paragraph as allegedly being indefinite. The Office Action continues to mistakenly assert that the phrase “diverse compounds” renders the claims indefinite. Applicants traverse the rejection and request reconsideration thereof because the claims are clear and definite.

The Office Action mistakenly concludes that the claims remain indefinite for the reasons of record -- because the terms are terms of degree and the specification allegedly does not provide a standard for determining degree. As stated in the last response, just because a claim includes a term of degree does not automatically render the claim indefinite. *Seattle Box Co., v. Industrial Crating & Packing, Inc.*, 731 F.2d 818, 221 U.S.P.Q. 568 (Fed. Cir. 1984). ***The Office Action has ignored this case law.*** Indeed, acceptability of claim language depends on whether one of ordinary skill in the art would understand what is claimed, in light of the specification (*see*, M.P.E.P. § 2173.05(b)). One skilled in the art would have no difficulty in determining the metes and bounds of the claims that contain such terms.

Applicants argued in the previous response that any degree of diversity is suitable for the invention and one skilled in the art would understand this in light of the specification. The Office Action asserts that Applicants are reading limitations from the specification into the claims. This is preposterous. The Examiner is requested to particularly point out which

limitations are being read into the claim and also identify the portion of any of Applicants' statements for support. Indeed, no limitations from the specification are being read into the claims.

The Office Action asserts that if any degree of diversity is suitable, then it is not clear how claim 33 further limits claim 30. Applicants respectfully point out that claim 30 encompasses, for example, groups of compounds that are similar and groups of compounds that are diverse. Thus, recitation of "diverse compounds" in claim 33 is proper.

The Office Action has provided no credible reasoning or evidence that supports the position that one skilled in the art would not be able to determine whether a particular group of compounds comprised "diverse compounds." Clearly persons of ordinary skill in the art having knowledge directed to synthesis of organic compounds would have no difficulty in determining whether a particular group of compounds comprises "diverse compounds." Accordingly, the claims are definite within the meaning of §112. *In re Mercier*, 185 U.S.P.Q. 774 (C.C.P.A. 1975) (claims sufficiently define an invention so long as one skilled in the art can determine what subject matter is or is not within the scope of the claims).

In view of the foregoing, Applicants submit that the claims set forth the subject matter regarded as the invention and the metes and bounds of the claims are well defined. Accordingly, Applicants respectfully request that the rejection under 35 U.S.C. § 112, second paragraph be withdrawn.

II. The Claimed Inventions Are Enabled

Claims 30-46 stand rejected under 35 U.S.C. § 112, first paragraph, for allegedly containing non-enabled subject matter. As best understood, the Office Action continues to erroneously assert that one skilled in the art would be required to perform undue experimentation to assign a specific standard to a specific target. Applicants traverse the rejection because no amount of undue experimentation is required to practice the claimed inventions.

The enablement requirement of § 112 is satisfied so long as a disclosure contains sufficient information that persons of ordinary skill in the art having the disclosure before them would be able to make and use the invention. *In re Wands*, 8 U.S.P.Q.2d 1400 (Fed. Cir. 1988)

(the legal standard for enablement under § 112 is whether one skilled in the art would be able to practice the invention without undue experimentation). In applying the enablement requirement, *the “invention” that must be enabled is that defined by the claims. Ex parte Erlich*, 3 U.S.P.Q.2d 1011 (Pat. Off. Bd. App. 1987). As in *Erlich*, the Examiner’s rejection is improper because it is directed to the Examiner’s interpretation of the claimed invention rather than what the claim actually recites. Applicants direct the Examiner’s attention to the actual claimed invention -- claim 30, for example. Claim 30 recites several steps, none of which require any amount of undue experimentation to carry out.

For example, claim 30 recites “selecting a standard compound that forms a non-covalent binding complex with said target molecule, said non-covalent binding complex having a baseline affinity.” The Examiner is requested to particularly point out what experimentation, let alone undue experimentation, is required to carry out this step. Obviously, the practitioner of claim 30, for example, knows the identity of the target molecule. Further, one skilled in the art would be able to select a standard compound that forms a non-covalent binding complex with the target molecule. Indeed, Applicants teach numerous standards at page 34, line 1 to page 35, line 23. The Office Action has provided no credible reasoning or evidence that supports its position in regard to the present step.

Claim 30 also recites “mixing an amount of said standard compound with an excess amount of said target molecule such that unbound target molecule is present in said mixture.” A person skilled in the art would not be required to perform any amount of undue experimentation to mix the standard compound with the target molecule such that unbound target molecule is present in the mixture. Indeed, the Office Action has provided no credible reasoning or evidence that supports its position in regard to this step.

Claim 30 also recites “adjusting the operating performance conditions of said mass spectrometer such that the signal strength of said standard compound bound to said target molecule is from 1% to about 30% of signal strength of unbound target molecule.” The Office Action also fails to provide any credible reasoning or evidence that supports its position in regard to this step. Indeed, no amount of undue experimentation is required to carry out this step.

Claim 30 also recites “introducing a sub-set of said group of compounds into a test mixture of said target molecule and said standard compound” and “introducing said test mixture into said mass spectrometer.” The Office Action has provided no credible reasoning or evidence that supports its position in regard to these steps.

Claim 30 also recites “identifying the members of said sub-set that form complexes with said target by discerning signals arising from said members complexed with said target and identifying the members by their respective molecular masses.” Again, the Office Action fails to provide any credible reasoning or evidence that supports its position in regard to this step. Indeed, no amount of undue experimentation is required to carry out this step.

Again, the Examiner’s attention is directed to the claimed invention. Claim 30, for example, recites a method of selecting those members of a group of compounds that can form a non-covalent complex with a target molecule. None of the individual steps recited in claim 30, as set forth above, require any amount of undue experimentation to carry out. The Examiner is requested to explicitly point out what undue experimentation is allegedly required to carry out any particular step recited in the claims.

As fully set forth above, no undue experimentation would be necessary to select a standard compound to practice the invention, and thus, the claims are sufficiently enabled by the specification. Accordingly, Applicants respectfully request that the rejection under 35 U.S.C. § 112, first paragraph be withdrawn.

III. Conclusion

In view of the foregoing, Applicants respectfully submit that the claims are in condition for allowance. An early notice of the same is earnestly solicited. In the event a Notice of Allowance is not forthcoming, the Examiner is requested to contact Applicants' undersigned representative at (215) 564-8906 so that an interview with the Examiner and the Examiner's supervisor can be scheduled. The attached page is captioned **"Version with markings to show changes made."**

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Claims 1-29 and 47-120 have been cancelled without prejudice to their presentation in another application as being drawn to non-elected inventions.

Claim 37 has been amended as follows.

37. (Amended) The method of claim 36 further including cross-indexing said relative abundance and stoichiometry of said [completes] complexes to the structures of said member compounds.